

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte RAM K. RAMESH, JOHN R. WOLF, and GEORGE D. WOFFORD

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U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2006-0680  
Application No. 10/041,129

HEARD: March 9, 2006

Before FRANKFORT, McQUADE, and CRAWFORD, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Ram K. Ramesh et al. appeal from the final rejection (mailed October 25, 2004) of claims 22-46, all of the claims pending in the application.<sup>1</sup>

THE INVENTION

The invention relates to a process for packaging a product in a bag made of heat-shrinkable multilayer film. Representative claim 22 reads as follows:

22. (previously presented) A process for packaging a product, comprising the steps of:

(A) placing a first product into a flexible, heat-shrinkable bag, the bag having an open top, whereby a first bagged product having excess bag length results, and wherein the bag comprises a heat-shrinkable multilayer film comprising:

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<sup>1</sup> Claim 46 has been amended subsequent to final rejection.

(1) a first layer, which is an inside bag layer, and which comprises polyolefin;

(2) a second layer comprising at least one member selected from the group consisting of polyolefin, polystyrene, and polyurethane;

(3) a third layer comprising at least one member selected from the group consisting of amorphous polyester and polyester having a melting point of from about 130°C to about 260°C; and

(4) a fourth layer, which is an outside bag layer, the fourth layer comprising at least one member selected from the group consisting of polyester, polyamide, polypropylene and polyurethane; and

wherein the bag is produced by sealing the first layer to itself, whereby the first layer is an inside bag layer and the fourth layer is an outside bag layer;

(B) repeating the placing step with a second product and a second bag, whereby a second bagged product results;

(C) stacking at least the first and second bagged products so that the excess bag length of each of the bagged products are on top of one another and within a sealing distance of a means for heat-sealing;

(D) heat-sealing the inside layer of first bag to itself in the region between the open end of the first bag and the product, and the inside layer of the second bag to itself in the region between the open end of the second bag and the product, so that the first product is completely sealed within the first bag and the second product is completely sealed with the second bag, the sealing being carried out at a temperature so that the resulting packaged products can be freely separated from one another without layer delamination.

THE PRIOR ART

The items relied on by the examiner to support the final rejection are:

Bauer et al. (Bauer) 5,837,358 Nov. 17, 1998

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The prior art practice of stack-sealing certain commercially available bags which is described on pages 1 and 2 of the appellants' specification (the admitted prior art).

THE REJECTION

Claims 22-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Bauer.

Attention is directed to the main and reply briefs (filed June 30, 2005 and November 7, 2005) and answer (mailed September 21, 2005) for the respective positions of the appellants and examiner regarding the merits of this rejection.<sup>2</sup>

DISCUSSION

The following passage from the appellants' specification describes the admitted prior art practice of stack-sealing certain commercially available bags:

Recently it has been discovered that certain commercially-available bags can be sealed when stacked on top of one another, i.e., without sticking to one another. This non-sticking characteristic provides an advantage for packaging in a vacuum chamber, because the chamber, although typically having only one sealing means, has more than enough space therewithin for multiple bagged products which are to be sealed after evacuation of the atmosphere from the chamber. Thus, the non-sticking feature enables the evacuation and

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<sup>2</sup> In the final rejection, claims 44-46 also stood rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Upon reconsideration, the examiner has withdrawn this rejection (see page 3 in the answer).

sealing of more than one bag at a time in a vacuum chamber, thereby increasing the production rate of the vacuum chamber packaging apparatus.

U.S. Patent No. 5,336,549 to Nishimoto et al., discloses a heat-shrinkable film which can be made into bags. Apparently, users of this film which is commercially available, have discovered that bags made from the film can be stacked on top of one another during sealing without sticking to one another (i.e., the bags are "stack-sealable"). This enables the output of vacuum chamber packaging machinery to be, for example, doubled, if two bags are stacked on top of one another and simultaneously sealed.

The film disclosed in the '549 patent has an outer layer of a polyester, and an intermediate layer of a polyamide having a melting point of higher than 160°C and lower than 210°C. Although Nishimoto et al discloses a large group of polyamides for use in an inner layer, together with various polyesters for use in an outer layer, Nishimoto does not disclose the use of an inner layer comprising polyester.

As conceded by the examiner (see page 3 in the answer), the admitted prior art does not respond to the limitations in independent claim 22 relating to the composition of the heat-shrinkable multilayer film. To account for this shortcoming, the examiner turns to Bauer.

Bauer pertains to multilayer packaging films particularly suited for food products. For purposes of the rejection, the examiner focuses on the embodiment shown in Figure 2, a heat-shrinkable multilayer film 13 composed of an inside product-contacting layer 14, an outside heat-resistant abuse layer 15 and a plurality of internal layers 16-19. Bauer's description of

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these layers indicates that each can be made from a variety of materials as long as certain parameters are met.

Combining the admitted prior art and Bauer to reject claim 1, the examiner submits that it would have been obvious

to have modified the method set forth in [the admitted prior art] by having substituted the bag structure disclosed in Bauer et al. for the bag disclosed in [the admitted prior art] because the substitution of one old and well known bag structure for another old and well known bag structure is routine in the art [answer, page 4].

The examiner allows, however, that even as so modified in view of Bauer, the admitted prior art still would not respond to certain of the bag limitations in claim 1 including the one calling for the third layer to comprise "at least one member selected from the group consisting of amorphous polyester and polyester having a melting point of from about 130°C to about 260°C. The appellants' specification (see, for example, pages 25-27) indicates that such a layer, when used in conjunction with the fourth outside layer specified in the claim, contributes significantly to desirable bag characteristics such as high impact strength, superior film optics and grease-resistance, facile orientation and high free shrink. To deal with the lack of any ostensible teaching or suggestion in Bauer of a "third" layer made from the particular polyesters recited in claim 22,

the examiner points to the internal layer 18 in Bauer's multilayer film 13 and concludes that it further would have been obvious "to have employed a polyester as the third layer having a melting point of from about 130°C to about 260°C, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art" (answer, pages 4 and 5).

Rejections based on 35 U.S.C. § 103(a) must rest on a factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967). In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. Id.

With regard to multilayer film 13, Bauer teaches that layer 18 comprises

at least one member selected from the group consisting of polyolefin, polyamide, polyester, and polyurethane; preferably, at least one member selected from the group consisting of polyolefin and polyamide; more preferably, at least one member selected from the group consisting of ethylene vinyl acetate, ethylene  $\alpha$ -olefin copolymer, propylene  $\alpha$ -olefin copolymer, ethylene acrylate copolymer, polyethylene homopolymer, and polypropylene homopolymer; still more preferably, a blend of 80 weight percent ethylene vinyl acetate copolymer (having 9 weight percent vinyl acetate) with

20 weight percent linear low density polyethylene [column 14, lines 26-37].

Thus, Bauer does disclose that layer 18, the so-called "third" layer, can be made of polyester. Bauer does not teach or suggest, however, that the polyester should have a melting point of from about 130°C to about 260°C, or give any reasonable indication that the particular type of polyester used would significantly affect the desired attributes of the overall multilayer film 13 and hence constitute an art-recognized result effective variable. The examiner's position to the contrary finds no evidentiary basis in the fair teachings of Bauer or the admitted prior art. Hence, even if the admitted prior art practice of stack-sealing bags were used in conjunction with the multilayer packaging film 13 disclosed by Bauer, the resulting process still would lack response to at least one of the bag limitations in claim 22.

Therefore, the admitted prior art and Bauer do not justify the examiner's conclusion that the differences between the subject matter recited in claim 22 and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. Accordingly, we shall not sustain the standing 35

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U.S.C. §103(a) rejection of independent claim 22, and dependent claims 23-46, as being unpatentable over the admitted prior art in view of Bauer.

SUMMARY

The decision of the examiner to reject claims 22-46 is reversed.

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REVERSED

*Charles E. Frankfort*

CHARLES E. FRANKFORT  
Administrative Patent Judge

*J. P. McQuade*

JOHN P. MCQUADE  
Administrative Patent Judge

*M. E. Crawford*

MURRIEL E. CRAWFORD  
Administrative Patent Judge

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Cryovac, Inc.  
P.O. Box 464  
Duncan, SC 29334

JPM/jrg